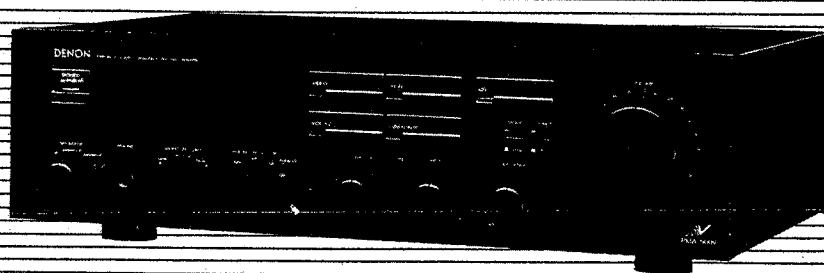


# DENON

## PRE-MAIN AMPLIFIER

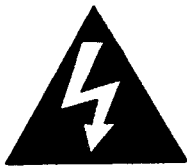
# PMA-500V

OPERATING INSTRUCTIONS  
BEDIENUNGSANLEITUNG  
MODE D'EMPLOI  
BRUKSANVISNING



FOR ENGLISH READERS  
FÜR DEUTSCHE LESER  
POUR LES LECTEURS FRANCAIS  
FÖR SVENSKA LÄSARE

PAGE 3 ~ PAGE 19  
SEITE 20 ~ SEITE 37  
PAGE 38 ~ PAGE 55  
SIDA 56 ~ SIDA 73



## CAUTION

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING: TO PREVENT FIRE OR SHOCK HAZARD,  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

For United Kingdom model only.

### WARNING:

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.  
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

### IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral  
Brown: Live

For Australian model only.

### FOR YOUR SAFETY

To ensure safe operation the three-pin plug supplied must be inserted only into a standard three-pin power point which is effectively earthed through the normal household wiring.

Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.

The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, consult a qualified electrician.

For U.S.A. and Canada models

### CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Please read the instructions before using. Following the instructions and operating hints will ensure top performance for many years.

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The following separate parts are contained in the shipping box. Please check to make sure they are present.  
Operating Instructions ..... 1

Keep the Operating Instructions in a secure place.  
Read the Operating Instructions thoroughly and then keep it in a secure place.

## Note:

Please note the following differences in the markings on the front and back panels on the European, U.K. and Australia models:

VIDEO-1 → AUX/VIDEO 1

VIDEO-2 → AUX/VIDEO 2

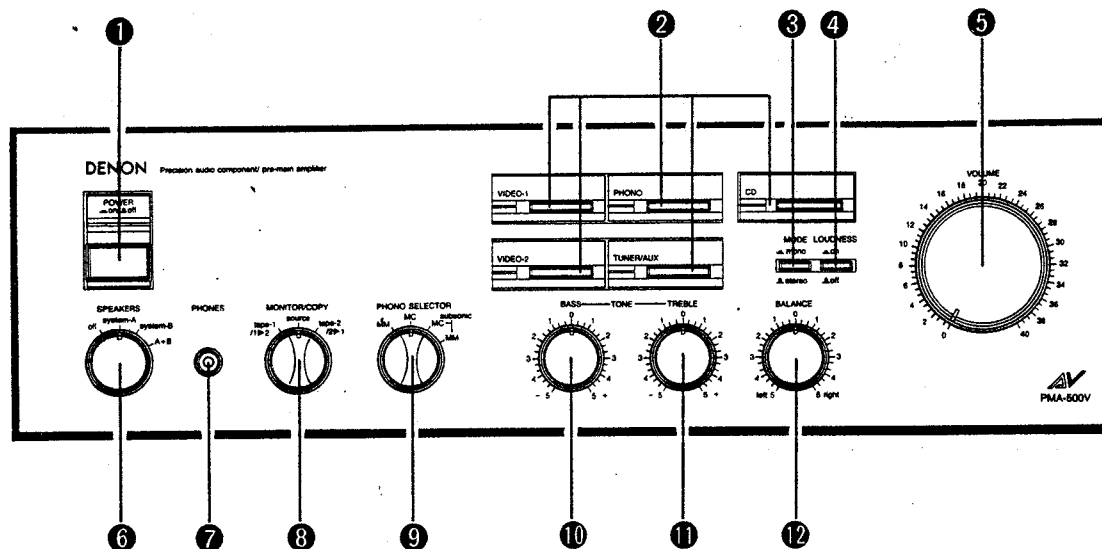
TUNER/AUX → TUNER

In addition, there is no AV mark on the front panel.

"SERIAL NO. \_\_\_\_\_"

PLEASE RECORD UNIT SERIAL NUMBER ATTACHED TO THE REAR OF THE CABINET FOR FUTURE REFERENCE"

# NAMES AND FUNCTIONS OF PARTS



## 1 POWER and LED indicator

(Power supply button and LED indicator)

When this button is pressed ON, the power is turned on, and the LED indicator lights. A few seconds will elapse after the power is turned on before operation can begin. This is due to the muting circuitry that is built in to eliminate noise when the power is turned on.

## 2 INPUT SELECTOR (Input select buttons)

This button is used to select the input signal.

- CD: Used to listen to a compact disc player or other component that is connected to the CD terminal.
- PHONO: Used to select the output from a record player that is connected to the PHONO terminal. The PHONO SELECTOR 9 is used to switch the sensitivity to suit the cartridge type.
- TUNER/AUX: Used to play a component such as an FM/AM tuner, a TV tuner, or an 8-track player that is connected to the TUNER/AUX terminal.  
(TUNER → For Europe, U.K. and Australia only): Used to play a component such as an FM/AM tuner.
- VIDEO-1: Used to play a component such as a Hi-Fi video component that is connected to the VIDEO-1 or VIDEO-2 terminal.  
(AUX/VIDEO 1) → For Europe, U.K. and Australia only: Used to play a component such as a Hi-Fi video component, TV tuner, 8-track player, or tape deck that is connected to the AUX/VIDEO 1 or AUX/VIDEO 2 terminals.

\* The PMA-500V uses a high performance electronic switch for this function. When the power is turned ON, the position of the INPUT SELECTOR switch is automatically set to TUNER.

## 3 MODE (Mode button)

- stereo: This position is set for stereo sound. ( )
- mono: This position is set for monophonic sound. It can be used to check the speaker phase or the stereo balance. ( )

## 4 LOUDNESS (Loudness button)

When the volume is low, it is difficult for humans to hear the low and high note ranges. The loudness button allows "one-touch" correction of this difficulty. Press the loudness button ON ( ) when listening to music at a low volume. The low notes and high notes will be corrected to produce a more natural feel to the music.

## 5 VOLUME (Volume control)

This button is used to adjust the volume of the entire range.  
Turn the knob to the right to raise the volume and to the left to lower it.

**6 SPEAKERS (Speaker select switch)**

The PMA-500V allows two speaker systems, designated A and B, to be connected.

- System-A: The speaker system connected to the speaker output terminal A is operated.
- System-B: The speaker system connected to the speaker output terminal B is operated.
- A + B: The speaker systems connected to the speaker output terminals A and B are operated simultaneously.
- Off: Sound from both speaker systems is cut off. This setting is used to listen to playback through the headphones.

**7 PHONES (Headphone jack)**

This jack is used to plug in the headphones.

**8 MONITOR COPY  
(Tape monitor/copy switch)**

Set this switch to Source for tape deck recording. The signal from the program source selected by the FUNCTION switch will then be output from the REC terminals for TAPE-1 and TAPE-2.

When using two tape decks to make a recording of one tape on another, set the switch to either tape-1/1 ▶ 2 or tape 2/2 ▶ 1 copy.

The tape-1/1 ▶ 2 position is used to play the tape deck that is connected to the tape-1 terminal.

The tape-2/2 ▶ 1 position is used to play the tape deck that is connected to the tape-2 terminal.

**9 PHONO SELECTOR  
(Cartridge selection/Subsonic filter switch)**

This switch is used for the player cartridge type selection function (for MC or MM cartridges), and to eliminate subsonic speaker vibrations caused by record player motor vibrations or warping in a record.

- MM: Used when an MM cartridge is used in the player connected to the PHONO cartridge.
- MC: Used when an MC cartridge is used in the player connected to the PHONO cartridge.
- SUBSONIC-MC: Used to eliminate subsonic speaker vibrations caused by record player motor vibrations or warping in the record, when an MC cartridge is used.
- SUBSONIC-MM: Used to eliminate subsonic speaker vibrations caused by record player motor vibrations or warping in the record, when an MM cartridge is used.

**10 BASS (Bass control)**

This is used to regulate the degree of bass in the sound.

When the knob is set to the center position, the frequency characteristic curve is flattened in the range below 1000 Hz. The bass increases as the knob is moved off center to the right, and decreases as it is moved to the left.

**11 TREBLE (Treble control)**

This is used to regulate the degree of treble in the sound.

When the knob is set to the center position, the frequency characteristic curve is flattened in the range above 1000 Hz. The treble increases as the knob is moved off center to the right, and decreases as it is moved to the left.

**12 BALANCE (Balance control)**

The balance between the amount of sound on the left and on the right is adjusted by using this knob.

When it is set to the center position, the amplifier gain is the same for the left and the right.

If there seems to be a difference in the left and right channel output voltages for the cartridge, try moving the knob to the left and the right to adjust it. If the volume on the right side is too low, turn the knob to the right. If the volume on the left side is too low, turn the knob to the left.

**Video Input Function**

The PMA-500V provides a video input function. The image selection circuitry gives preference to VIDEO-1 for all settings of the INPUT SELECTOR button, unless VIDEO-2 has been specified.

This function might be used, for example, to watch a TV monitor while playing a compact disc. In this case it would connect the image input circuitry of the VIDEO-1 terminal to the image output of a video recorder, tape recorder, or video disc recorder. The resultant monitor out signal would be sent to the TV monitor, for "background video" audio-visual entertainment combining sound and images.

## **OPERATION**

### ● **Pre-operation**

1. Check the connections.
  - Refer to the connection diagrams on pages (10) and (11), and make sure that no mistakes in the connection have been made.
  - Check to make sure that there are no mistakes in the L and R connections and the polarities (+, -) of the speaker systems.
  - Check to make sure that left (L) and right (R) sides of the pin cords are plugged in properly.
  - Check to make sure that all cords are firmly connected.
2. Check the position of each knob.
  - Turn the volume knob (VOLUME) all the way to the left to its 0 position.
  - Set the balance knob (BALANCE) to the center to its 0 position.
  - Set the tone knobs (BASS, TREBLE) to the center to their 0 positions.
  - Set the monitor/copy knob (MONITOR/COPY) to the Source position.
  - Set the speaker selection switch (SPEAKERS) to the A or B position to correspond to the speaker terminal that is being used.
  - Press the loudness button (LOUDNESS) to OFF ( ■ ).

After checking all of the above, press the power switch (POWER) to turn the power supply ON. The power indicator will light, and a few seconds later, the amp will be in operation ready state.

### ● **Compact disc playback**

- ① Press CD on the INPUT SELECTOR.
- ② Operate the CD player that is connected to the amp to put it in ready state.
- ③ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.

### ● **Record playback**

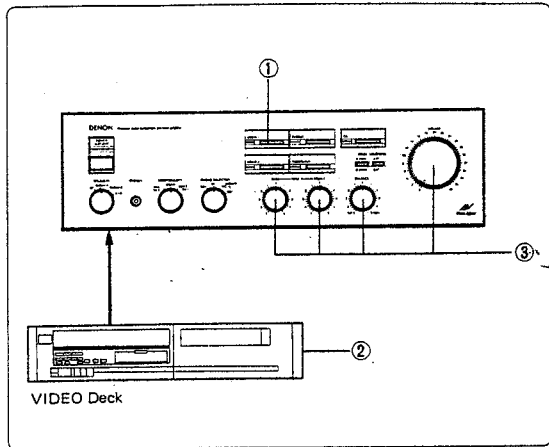
- ① Press PHONO on the INPUT SELECTOR.
- ② Set the Phono Selector switch to MM or MC to correspond to the cartridge to be used.
- ③ Operate the record player to play a record.
- ④ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.  
If a record that is warped is played, noise outside the audio frequency range will be generated, causing the low tone speakers to vibrate and deteriorating the quality of the sound. To eliminate the subsonic noise, set the Phono Selector switch to Subsonic-MM or Subsonic-MC.

### ● **Receiving broadcasting signals**

- ① Press TUNER/AUX on the INPUT SELECTOR.
- ② Operate the tuner to pick up a broadcasting signal.
- ③ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.  
To pick up broadcasting clearly, it is necessary to select an antenna suited to the type of signal and the installation environment, and install it in an appropriate location. For details, refer to the operating manual for the tuner.

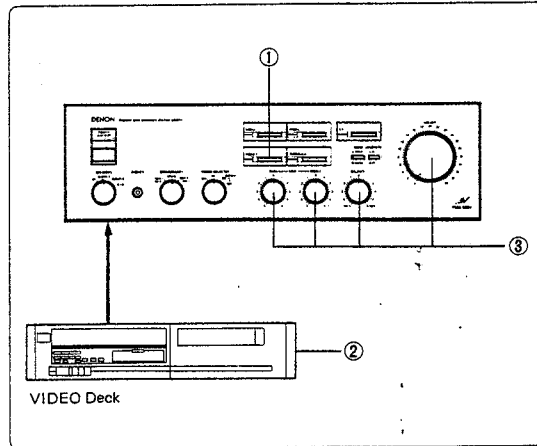
● **Playing an audio component connected to the VIDEO-1 terminal.**

- ① Press VIDEO-1 on the INPUT SELECTOR.
- ② Operate the connected audio device to put it in ready state.
- ③ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.



● **Playing an audio component connected to the VIDEO-2 terminal.**

- ① Press VIDEO-2 on the INPUT SELECTOR.
- ② Operate the connected audio device to put it in ready state.
- ③ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.



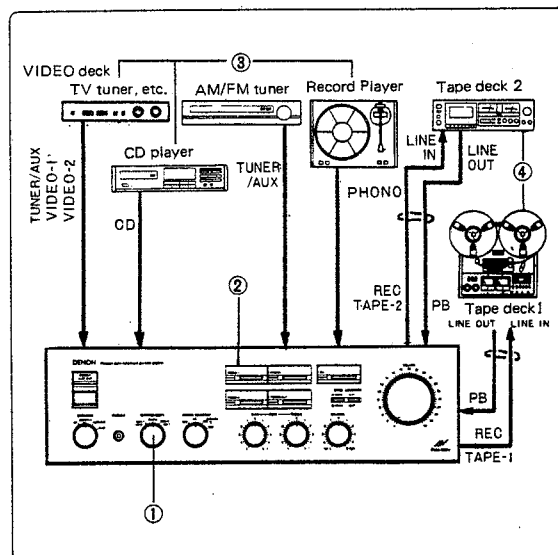
● **Tape playback**

- ① Turn the MONITOR/COPY knob to set it to Tape-1 or Tape-2.  
\* Set the knob to Tape-1 to use the tape deck that is connected to the TAPE-1 terminal, and to Tape-2 to use the tape deck that is connected to the TAPE-2 terminal.
  - ② Operate the tape deck to play a tape.  
(For details, refer to the operating manual for the tape deck.)
  - ③ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.
- After a long period of use, the sound quality of the tape recorder tends to deteriorate due to dirt on the head surfaces and the capstan. Periodically clean these areas to maintain the quality of the recorded sound.  
(For details, refer to the operating manual for the tape deck.)

● **Tape deck recording**

Recording of a program source such as a record or broadcast signal can be performed on a tape deck by connecting it to the TAPE REC terminal.

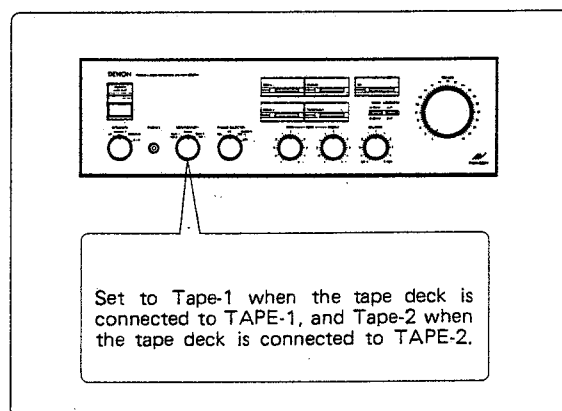
- ① Turn the MONITOR/COPY knob to set it to Source.
- ② Set the INPUT SELECTOR to PHONO or TUNER/AUX to correspond to the program source (a record or a broadcast signal) to be recorded.
- ③ Begin playing the program source.
- ④ Operate the tape deck, adjust the recording level, and begin the recording.  
(Refer to operating manual for the tape deck for details on its operation.)  
Adjusting the volume or tone knobs will not result in an alteration of the volume or tonal quality of the recording signal.



## ENGLISH

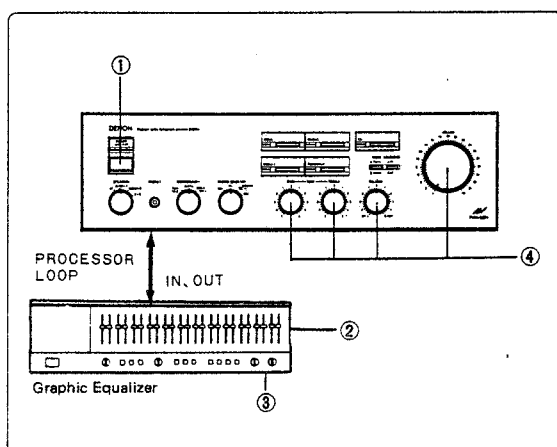
### ● Monitoring the Recording

A recording in progress can be monitored if a tape deck with three individual heads for recording and playback is used. A tape deck in which a common head is used for both recording and playback cannot be used to monitor recording. Set the MONITOR/COPY knob to Tape-1 or Tape-2 to correspond to the tape deck that is being used for the recording. Use the TAPE MONITOR switch to switch between the recording monitor and the program source.



### ● Using the Amp with a Graphic Equalizer

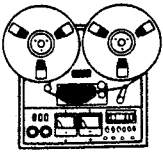
- ① Remove the jumper pin from the PROCESSOR LOOP terminal. (The power switch should be turned OFF.)
- ② Operate the graphic equalizer (which should be connected to set it in ready state. (For details, refer to the operating manual for the graphic equalizer.)
- ③ If the graphic equalizer has an output level knob (OUTPUT LEVEL), adjust it together with the volume adjustment knob on the amp (VOLUME) and set it in a position that produces a suitable volume.
- ④ Use the volume, balance and tone knobs to set a suitable volume and adjust the quality of the sound.



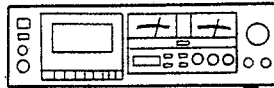


# COPYING TAPES

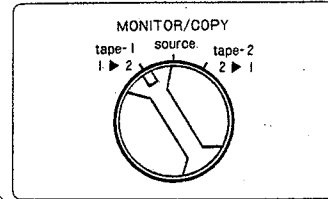
Copying from tape deck 1 to tape deck 2



Tape deck 1  
(Program source) Insert the already-recorded tape

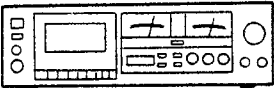


Tape deck 2  
Insert tape to be recorded

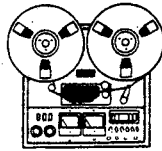


①

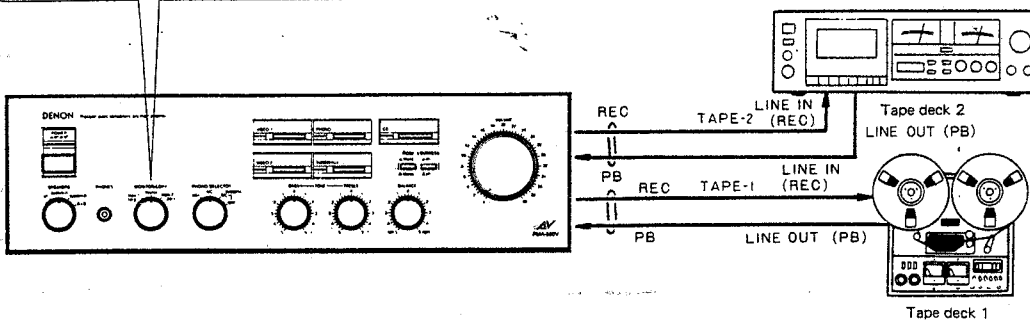
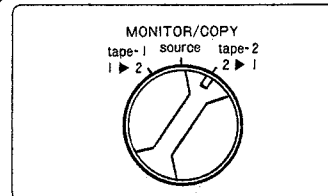
Copying from tape deck 2 to tape deck 1



Tape deck 1  
(Program source) Insert the already recorded tape



Tape deck 2  
Insert tape to be recorded



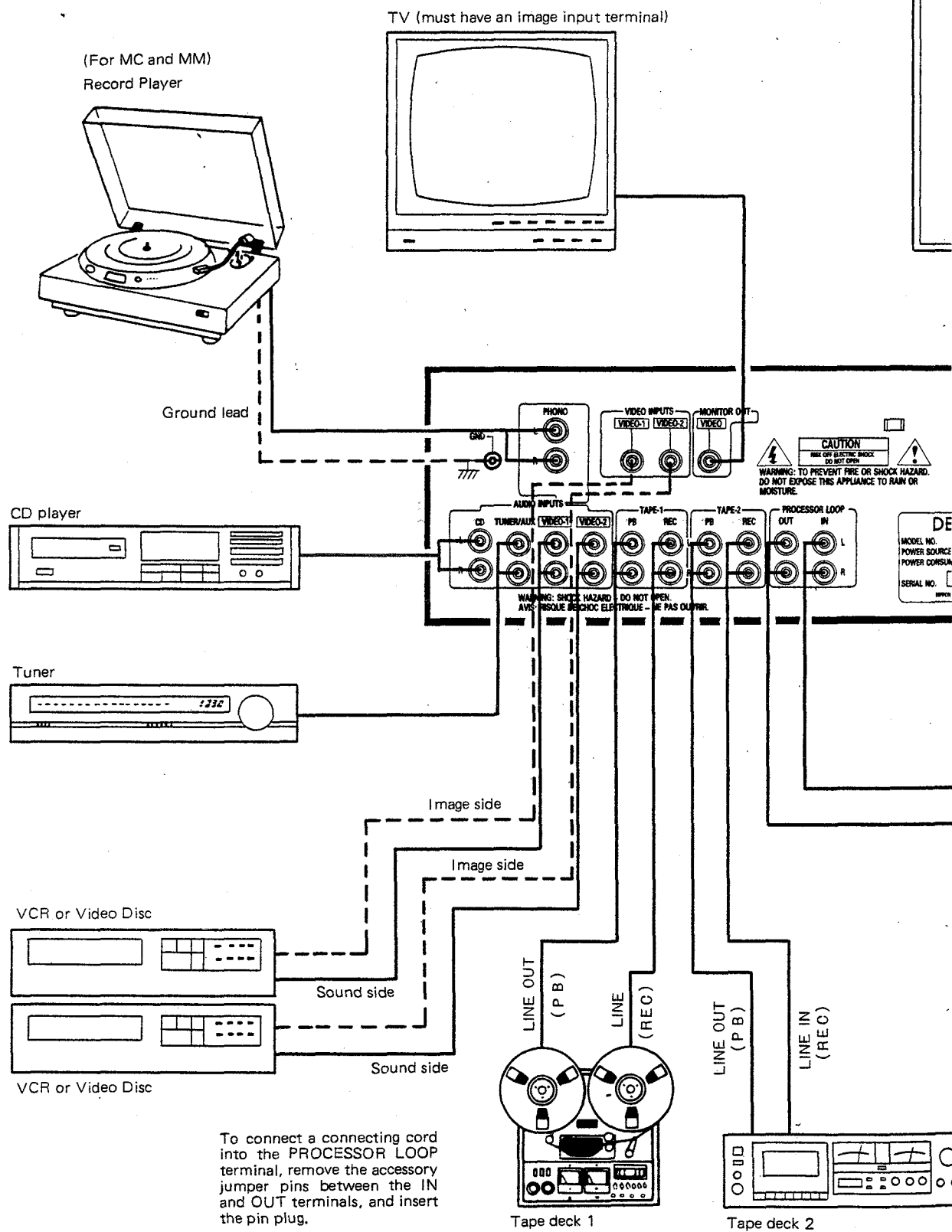
## ● Copying from One Tape to Another

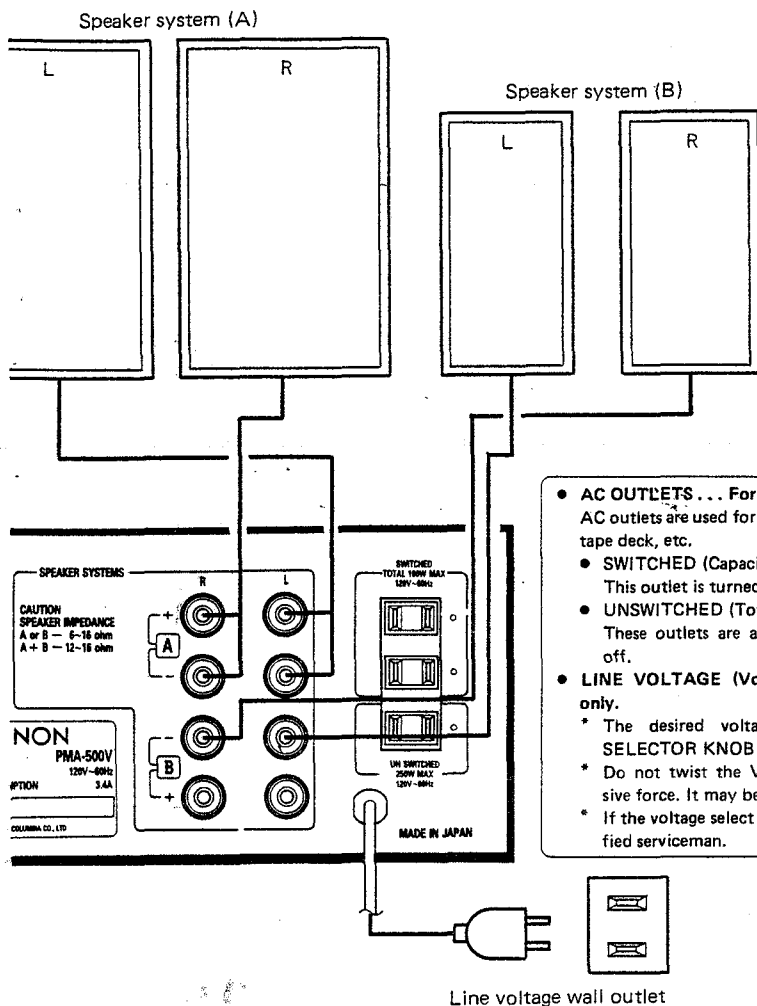
If two tape decks are used, a recording on one tape can be copied to another tape.

- ① Set the MONITOR/COPY knob to Tape 1/1 ▶ 2 or Tape 2/2 ▶ 1.  
\* To copy from tape deck 1 to 2, set the knob to Tape 1/1 ▶ 2. To copy from tape deck 2 to 1, set the knob to Tape 2/2 ▶ 1.
- ② Operate the deck for recording and the deck for playback, and begin the recording.  
While the tape is being copied, it is not possible to listen to another program source from the speakers.

# ENGLISH

## CONNECTIONS





• **Connection to the speaker system**

Connect the speaker system for the left channel (the left side as viewed facing the front) to the L speaker terminal on the back panel, and the speaker system for the right channel into the R terminal. There are two sets of SPEAKERS terminals. If only one speaker system is to be used, connect it to the SYSTEM A terminals.

• **AC OUTLETS . . . For U.S.A., Canada and Asia**

AC outlets are used for connecting amplifier component units, such as tuner, turntable, tape deck, etc.

• **SWITCHED (Capacity: 100 W):**

This outlet is turned on/off when main power switch is turned on/off.

• **UNSWITCHED (Total capacity: 250 W)**

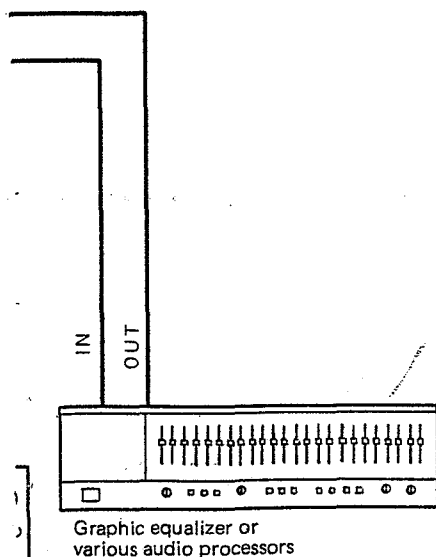
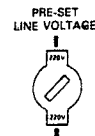
These outlets are always ON whether power switch is on or off.

• **LINE VOLTAGE (Voltage select switch) . . . For Asia model only.**

\* The desired voltage may be set with the VOLTAGE SELECTOR KNOB on the back panel using a screw driver.

\* Do not twist the VOLTAGE SELECTOR KNOB with excessive force. It may be damaged.

\* If the voltage select switch does not turn smoothly, see a qualified serviceman.



Note: When this terminal is not being used, OUT and IN should be connected with the Jumper Pin.

• **Notes on Connection**

- Do not plug the power supply cord into the wall socket, until all the connections are complete.
- Verify which channel is the left and which is the right, and then plug L into L and R into R.
- Plug the pins in securely. An incomplete connection will cause noise generation.
- Do not use the AC OUTLETS terminals to provide power for a hair drier or other electrical appliance after the power supply cords of the audio components have been plugged in.
- Binding the pin plug to the power supply cord, or setting the pin cord close to the power supply transformer will cause humming or noise, and should be avoided.
- The PHONO input terminal is extremely sensitive. Avoid using the amp when the pin cord is not plugged into the terminal. If the pin cord is not used, a low humming may be emitted from the speaker when the amp is on.

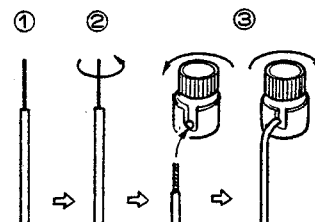
- **Connection to the speaker system**

- When connecting the speaker terminals to the speaker systems, make certain to connect the polarities correctly (+ to + and - to -). If the polarities are incorrect when the two are connected, the center area of the sound will be lacking, the positions of the musical instruments will not be clear, and the stereo directional sensitivity will be impaired.
- During connection, be careful that the center wires in the speaker cords do not protrude from the terminals to contact any other terminal, and that the central wires in the separate speaker cords do not contact each other.

- **Speaker impedance**

- When the A and B terminal sets are to be used separately, the speakers that are to be connected should have a nominal impedance of 6 to 16 ohms.
- When the two sets (A + B) are to be used at the same time, use of speakers whose impedance is outside the range from 12 to 16 ohms will result in malfunction. Be careful not to let this happen.
- Speakers with a lower impedance may cause the protective circuitry to operate.

1. Remove the insulation from the end of each cord.
2. Twist the center wire.
3. Turn the speaker terminal to loosen it, insert the center wire of the cord, and then tighten the terminal to hold the wire in place.

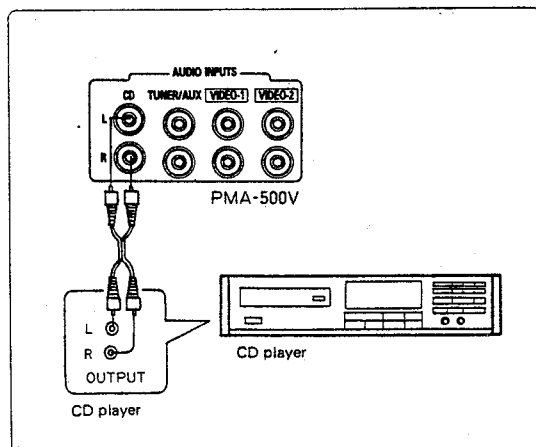
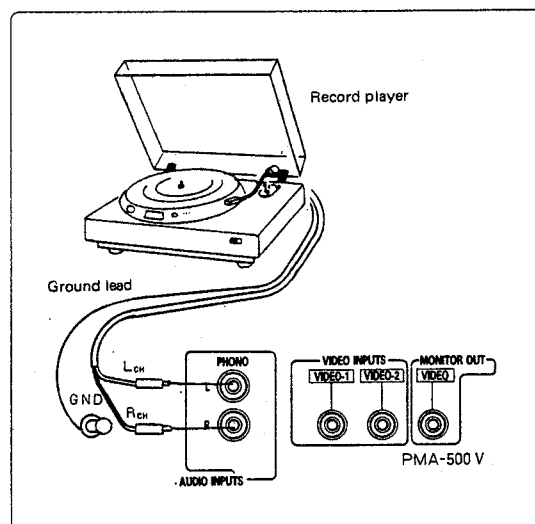


- **Connecting the Record player**

- Connect the record player output cord to the PHONO terminal on the amp unit, with the L plug in the L terminal and the R plug in the R terminal.

If the player has a ground wire, connect it to the GND terminal.

- \* If humming or other noise is generated when the ground wire is connected, do not connect it.

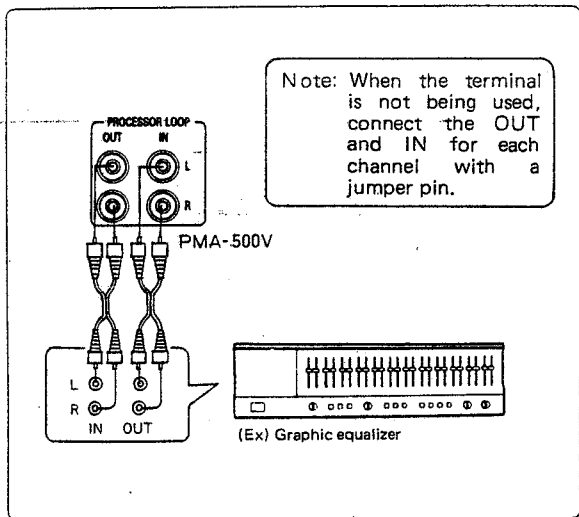
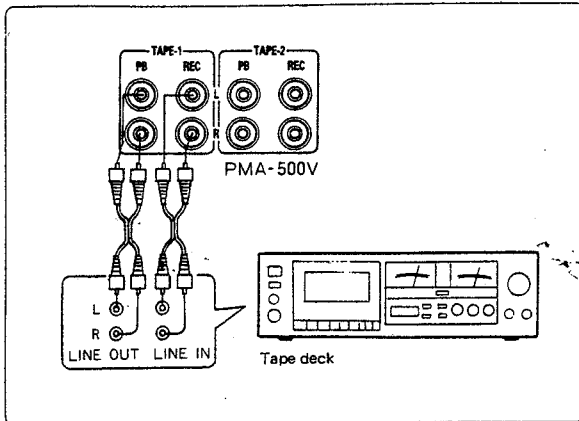


- **Connecting the CD Player**

- Connect the output terminals of the CD player (OUTPUT) to the CD terminals on the amp, using a pin cord.

● **Connecting the Tuner**

- Connect the output terminals (OUTPUT) on the tuner to the tuner terminals on the amp (TUNER/AUX), using a pin plug cord.

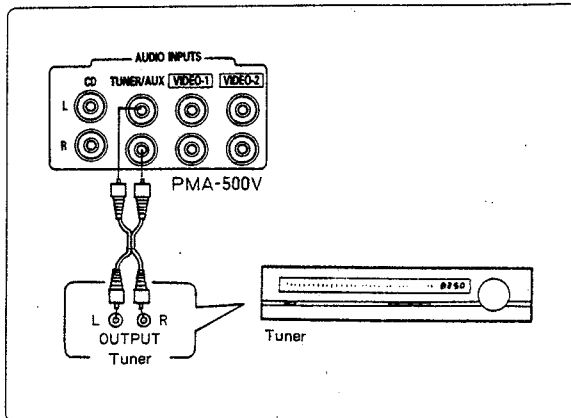


● **TUNER/AUX terminal**

- The TUNER/AUX terminal has the same electrical characteristics as the CD terminal, the VIDEO-1 terminal, the VIDEO-2 terminal, and the tape playback terminal (PB). It can be used to connect components such as a TV tuner or second tape deck to be used for playback, or a second CD player.
- Connect the output terminal of the desired audio component (OUTPUT) to the TUNER/AUX terminal on the amp, using a pin plug cord.

● **AUX/VIDEO 1, AUX/VIDEO 2 terminals (For European, U.K., and Australian models.)**

- The AUX/VIDEO 1, AUX/VIDEO 2 terminals has the same electrical characteristics as the CD terminal, the TUNER terminal, and the tape playback terminal (PB). It can be used to connect components such as a TV tuner or second tape deck to be used for playback, or a second CD player.
- Connect the output terminal of the desired audio component (OUTPUT) to the AUX/VIDEO 1, AUX/VIDEO 2 terminals on the amp, using a pin plug cord.



● **Connecting the Tape Deck**

- The PMA-500V has two tape terminal systems (TAPE-1 and TAPE-2). This allows connection of two separate tape decks to the amplifier for simultaneous recording or making copies of a tape.
- For recording: Connect the record input terminal on the tape deck (LINE OUT or to the TAPE record terminal on the amp (REC), using a pin plug cord.
- For playback: Connect the playback output terminal on the tape deck (LINE OUT or PB) to the TAPE playback terminal on the amp (PB), using a pin plug cord.

● **PROCESSOR LOOP terminal**

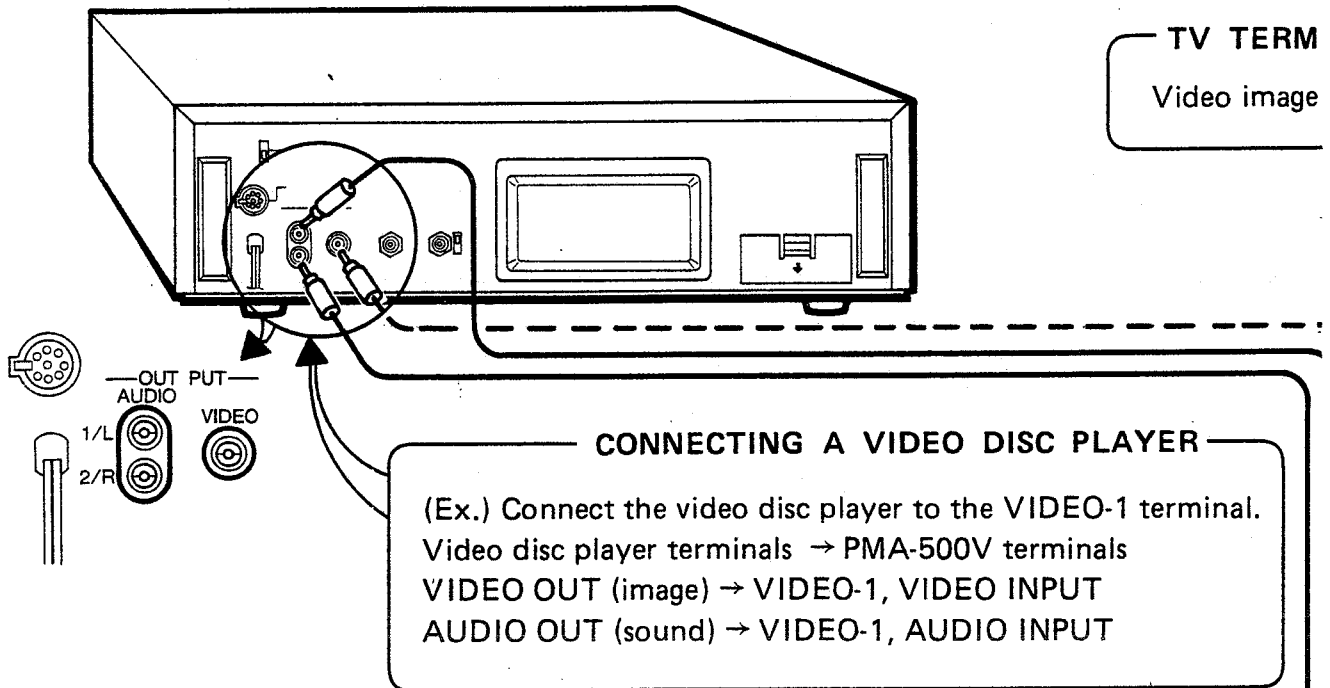
- The PROCESSOR LOOP terminal has the same electrical characteristics as the CD, TUNER, and TAPE terminals. It can be used to connect audio processors such as a graphic equalizer or an AV control center.
- Connect the output terminal of the desired audio component (OUTPUT) to the IN terminal on the amp, and the input terminal of the component (INPUT) to the OUT terminal on the amp.

• Connecting a video device

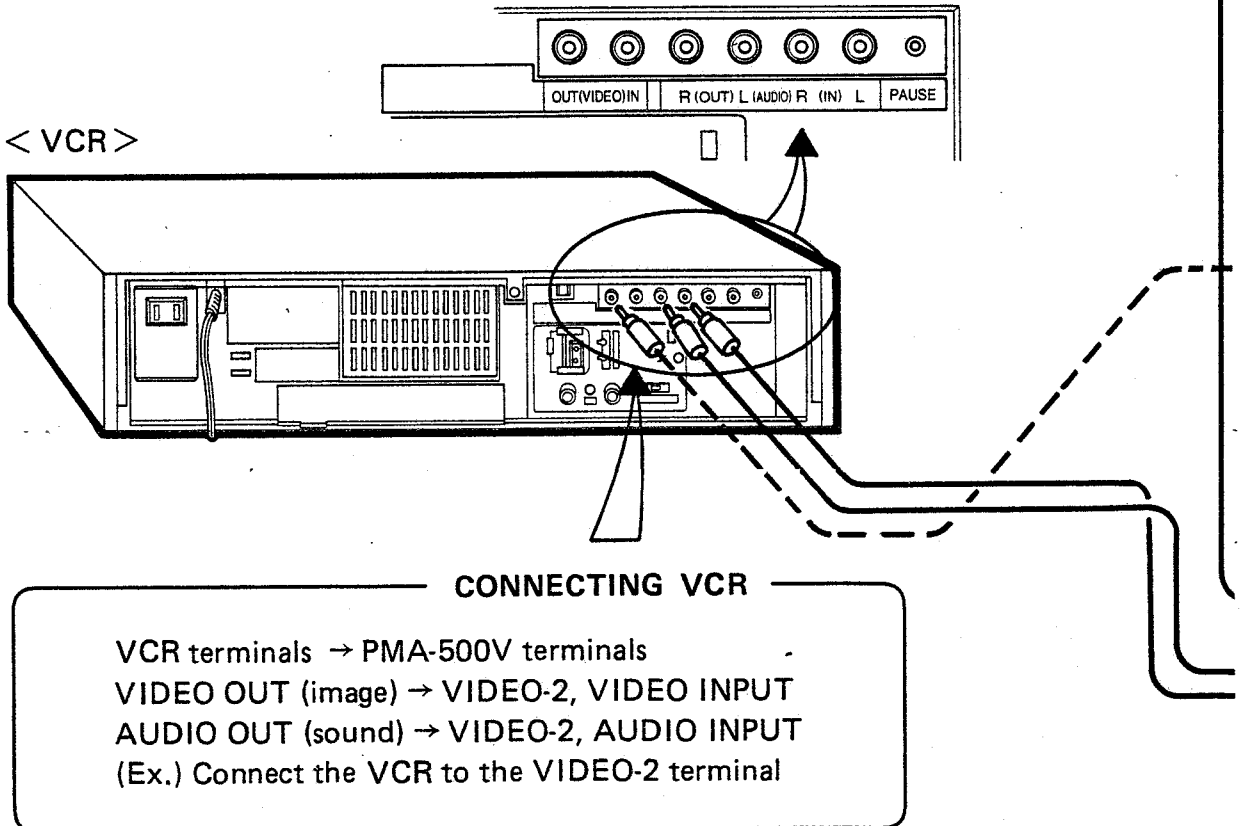
Connect the output terminals of the video device (OUTPUT) to the VIDEO terminals of the amp, using a pin plug cord.

• CONNECTIN

< Video Disc Player >



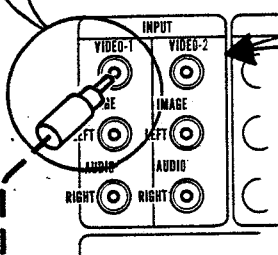
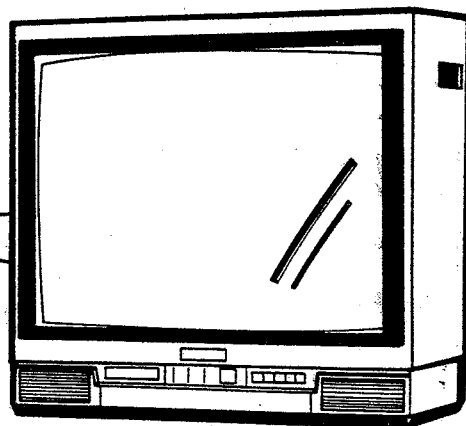
< VCR >



# CONNECTING A VIDEO DEVICE

< TV (must have image input terminal) >

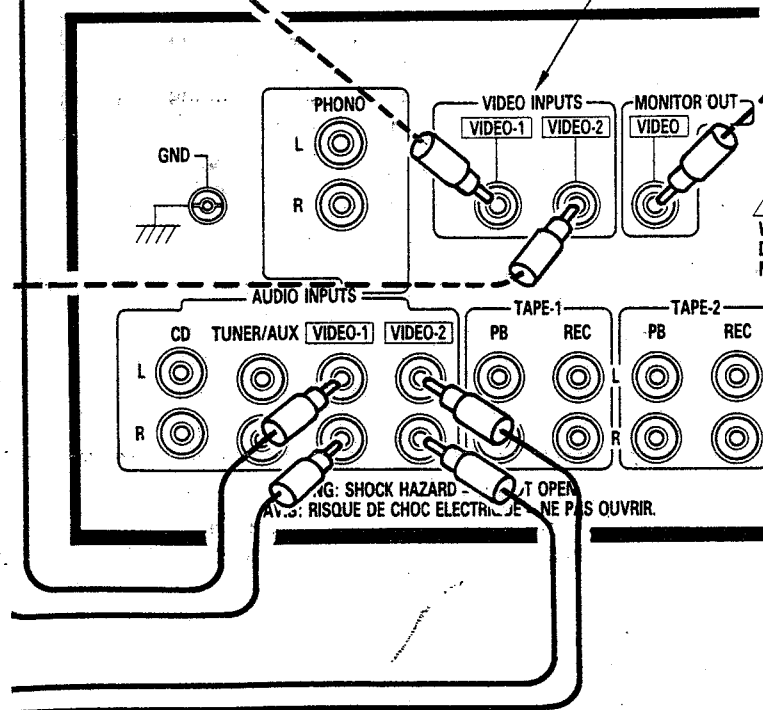
INPUTS → PMA-500V TERMINALS  
output terminal ← MONITOR OUT



## VIDEO INPUT

The PMA-500V has a VIDEO selection function. VIDEO-1 is automatically used for all playback functions, unless the input selection switch is set to VIDEO-2.

Connect the image output of a video device such as a VCR to VIDEO-1 for simultaneous playback with another medium, such as a compact disc.



**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
WARNING: TO PREVENT FIRE OR SHOCK HAZARD.  
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR  
MOISTURE.

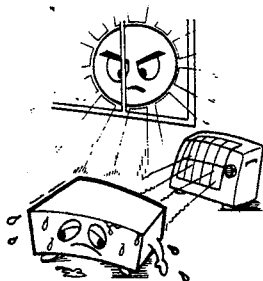
SPEAKER

**CAUTION**  
SPEAKER IMPE  
A or B - 6~  
A + B - 12~

**DENON**

MODEL NO. PMA-500V  
POWER SOURCE 120V~  
POWER CONSUMPTION  
SERIAL NO. \_\_\_\_\_  
NIPPON COLUMBIA CO., LTD.

NOTE ON USE

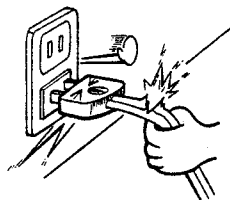


**Be careful of high temperatures.**

- Do not place the amplifier where it will be exposed to direct sunlight or close to heating devices.

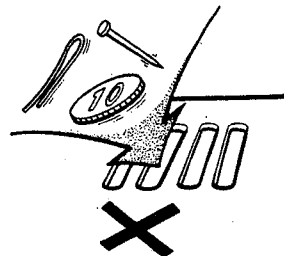
**Installation in a cabinet**

- Avoid installing the amplifier in a sealed, airtight cabinet.
- If a cabinet is to be used, make certain that the amp is placed in a well-ventilated section. If necessary, cut out sufficient space in the cabinet walls to allow heat to escape.



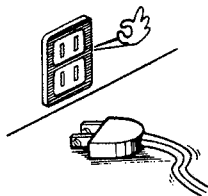
**Be careful with the power supply cord.**

- Do not pull out the plug by yanking on the power supply cord. Always take the plug in hand pull it out.



**Do not allow foreign matter to get inside the equipment.**

- Do not allow needless, hairpins, coins, etc. to slip inside the amplifier.



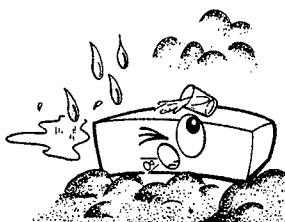
**During your absence**

- If no one will be in the room for a long period and the amplifier is not being used, make certain to pull out the plug from the wall socket.



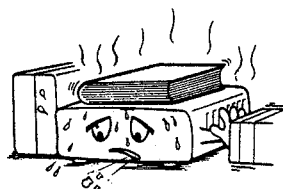
**Do not use insect repellent or chemically-treated cleaning cloths**

- Do not wipe off the equipment with chemically-treated cleaning cloths or solvents such as benzene, alcohol, or thinner. Do not spray it with insect repellent.



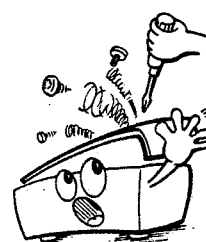
**Humidity, water and dust must be prohibited.**

- Do not place the amplifier in dusty areas or those subject to high humidity. Do not place vases or other containers filled with water on top of the equipment.



**Do not place objects on top of the ventilation holes.**

- Placing objects on top of the ventilation holes will result in malfunction.
- The ventilation holes are extremely important in allowing heat to escape from the amplifier. If they are covered up, the internal temperature of the amplifier will rise abnormally. Be careful to avoid this.



**Do not open the cabinet.**

- It is extremely dangerous to open the cabinet or its bottom lid and reach inside. Do not open the amplifier. If a problem occurs with the equipment, unplug the power supply cord at once, and contact the store where you purchased the amplifier.



# SPECIFICATIONS

## ■ POWER AMPLIFIER SECTION

Rated Output Power:

Both channel drives (TUNER → SP OUT)

80 Watts minimum rms per channel

(8 ohm Load) with less than 0.05% total

harmonic distortion from 20 Hz to 20 kHz.

1 kHz (4 ohm Load) 130 W + 130 W (DIN, T.H.D 1%)

Total Harmonic Distortion:

0.007% (20 Hz – 20 kHz at –3 dB rated output 8 ohm Load)

0.003% 1 kHz (at rated output 8 ohm Load)

Input Sensitivity:

150 mV

Input Impedance:

30 k ohm

## ■ EQUALIZER AMPLIFIER SECTION

Equalizer Amplifier Output:

(REC OUT Terminal)

Rated Output: 150 mV

Input Sensitivity/Input Impedance:

PHONO MM 2.5 mV 47 k ohm

MC 200  $\mu$ V 100 ohm

CD, VIDEO-1, VIDEO-2, TUNER/AUX, TAPE

150 mV 47 k ohm

RIAA Deviation:

PHONO MM within  $\pm 0.2$  dB

(20 Hz – 20 kHz)

MC within  $\pm 0.3$  dB

(20 Hz – 50 kHz)

Maximum input Voltage:

PHONO MM 160 mV/1 kHz

MC 12 mV/1 kHz

## ■ OVERALL CHARACTERISTICS

SN Ratio (IHFA Network):

PHONO MM 88 dB (input terminals short-circuited for 5 mV input)

MC 68 dB (input terminals short-circuited for 500  $\mu$ V input)

TUNER/AUX, CD, TAPE, VIDEO-1, VIDEO-2

105 dB (input terminals short-circuited)

Tone Control Adjustable Range:

BASS 100 Hz  $\pm 10$  dB

TREBLE 10 kHz  $\pm 10$  dB

Filtering Characteristics:

SUBSONIC 16 Hz, 12 dB/oct

Loudness Characteristics:

Low frequency 100 Hz + 7 dB

High frequency 10 kHz + 6 dB

AC OUTLET:

(For U.S.A., Canada and Asia)

POWER SOURCE:

SWITCHED x 2, 100 W (Total)

UNSWITCHED x 1, 250 W

Germany and France AC 220 V, 50 Hz; U.K. and Australia

AC 240 V, 50 Hz; U.S.A. and Canada AC 120 V, 60 Hz;

Asia 110/120/220/240 V, 50/60 Hz (Multiple)

POWER CONSUMPTION:

3.4A or 170 W (U.S.A.); 3.4A (Canada); 190 W (IEC); 150 W

(Multiple)

DIMENSIONS:

434 mm (17-3/32")W x 137 mm (5-25/64")H x

385 mm (15-5/32")D

(including rubber feet, control knobs, and terminals.)

WEIGHT:

9.4 kg (20 lbs 12 oz) (For U.S.A. & Canada)

9.7 kg (21 lbs 7 oz) (For Europe, Multiple and Australia Version)

Design and specifications are subject to change without prior notice.

# TROUBLE-SHOOTING

If you think the amplifier is out of order, first check the following one more time:

1. Are all the connections correctly made?
2. Is the amplifier being operated properly in accordance with the Operating Manual?
3. Are the speakers and player being operated correctly?

If the set does not operate properly, perform the checks indicated in the chart below.

If none of the items listed apply to the difficulty, the amplifier is probably out of order. Turn off the power immediately, and contact the outlet where you purchased the amplifier.

	Symptom	Cause	Countermeasure
Occurs During Record and Tape Playback, FM Reception, etc.	When the power switch is turned on, the LED does not light and there is no sound.	<ul style="list-style-type: none"><li>• The plug on the power supply cord is not completely plugged in.</li></ul>	<ul style="list-style-type: none"><li>• Check whether the power supply cord is plugged in properly.</li></ul>
	The LED lights but there is no sound from the speakers.	<ul style="list-style-type: none"><li>• The speaker cords are not fully connected.</li><li>• The speaker switch is OFF.</li><li>• The tape monitor switch is set to Tape-1 or Tape-2.</li><li>• The setting of the INPUT SELECTOR knob is not correct.</li><li>• The volume knob is set too low.</li></ul>	<ul style="list-style-type: none"><li>• Connect them firmly.</li><li>• Turn the speaker switch to A or B.</li><li>• To listen to anything other than a tape (REC, PB), turn the MONITOR knob to Source.</li><li>• Select the appropriate setting.</li><li>• Turn the volume knob to a suitable level.</li></ul>
	Sound comes out from only one side.	<ul style="list-style-type: none"><li>• The speaker cords are not fully connected.</li><li>• The input cord is not fully connected.</li><li>• The left/right balance is off.</li></ul>	<ul style="list-style-type: none"><li>• Plug the speaker cord in firmly.</li><li>• Plug the input cord in firmly.</li><li>• Turn the balance knob to adjust the balance properly.</li></ul>
	The volume differs for broadcasting and record playback.	<ul style="list-style-type: none"><li>• The tuner and the record output differ.</li></ul>	<ul style="list-style-type: none"><li>• Adjust the tuner output to correspond to the player output.</li></ul>
	In stereo, the position of the instruments varies to the left and right.	<ul style="list-style-type: none"><li>• The left and right speakers or the left and right input connection cords are reversed.</li></ul>	<ul style="list-style-type: none"><li>• Check the left and right connections.</li></ul>

	Symptom	Cause	Countermeasure
Occurs During Record Playback	During record playback, a low nose is generated.	<ul style="list-style-type: none"> <li>• The ground wire for the player is disconnected.</li> <li>• The PHONO terminal is not fully connected.</li> <li>• A television or radio transmitter antenna is located nearby.</li> </ul>	<ul style="list-style-type: none"> <li>• Plug it in firmly.</li> <li>• Plug it in firmly.</li> <li>• Consult your DENON service representative.</li> </ul>
	During record playback, when the volume is turned up, a high ringing noise is generated. (High ring phenomenon)	<ul style="list-style-type: none"> <li>• The player is too close to the speaker system.</li> <li>• The floor is too soft and it vibrates easily.</li> </ul>	<ul style="list-style-type: none"> <li>• Place the two as far apart as possible during use.</li> <li>• Use cushioning to absorb the speaker vibrations that are being transferred to the floor.</li> </ul> <p>If the player does not have an attached insulator, use a regular audio insulator.</p>
	The sound is distorted.	<ul style="list-style-type: none"> <li>• The needle pressure is too low.</li> <li>• There is dust on the tip of the needle.</li> <li>• The cartridge is defective.</li> </ul>	<ul style="list-style-type: none"> <li>• Use the proper needle pressure.</li> <li>• Check the tip of the needle.</li> <li>• Replace the cartridge.</li> </ul>
Related to the image	Noise is generated from the connected AM tuner.	<ul style="list-style-type: none"> <li>• Tuner AM antenna and image output cable are too close together.</li> </ul>	<ul style="list-style-type: none"> <li>• Separate the image input cable and the tuner AM antenna.</li> </ul>

## DENON SERVICE

- Please contact one of our overseas service centers, listed below, for follow-up service consultation.
- Wenden Sie sich für anfallende Wartungs- bzw. Reparaturarbeiten bitte an eine der folgend aufgeführten Kundendienststellen.
- Adressez-vous à nos centres de service d'outre-mer indiqués ci-dessous, pour le service après-vente.
- Ta kontakt med nedan angivna servicecentraler för rådfrågning om servicearbeten efter försäljningen.

<b>Australia</b>	Amalgamated Wireless (Australasia) Ltd. Ashfield Division, 554 Parramatta Road, Ashfield N.S.W. 2131, Australia Tel: 797-5757
<b>Belgium</b>	Transtel-Sabima P.V.B.A. Harmoniestraat 38 B-2000 Antwerpen, Belgie Tel: 031-37-3607
<b>Canada</b>	Denon Canada Inc. 17 Denison Street, Markham Ontario, Canada L3R 1B5 Tel: 416-475-4085
<b>Denmark</b>	Audionord Denmark Aps Europaplads 4, 8000 Århus C. Tel: 06-128811
<b>Finland</b>	Oy Nepcon AB Patotie 4, 01600 Vantaa 60 Tel: 90-5664844
<b>France</b>	Audio Digital Electronics S.A. 9 Rue du Debarcadere, 75017 Paris Tel: 574-4444
<b>Greece</b>	Kinotechniki Ass. 47 Stournara Str., Athens Tel: 3606 998
<b>Hong Kong</b>	Tai Lin Radio Service Ltd. 310 Nathan Road, Kowloon, Hong Kong Tel: K-855005-8
<b>Iceland</b>	B. Skaptason & Co. Hafnarstrati 5, P.O. Box 852, 121 Reykjavik Tel: 19630
<b>Italy</b>	Denico s.r.l. Via Privata Santa Maria 77, 20093 San Maurizio Al Lambro, Milano Tel: 02-254-9989
<b>Malaysia</b>	Pertama Audio Sdn. Bhd. G34/35, Ground Floor, Pertama Shopping Complex Jalan Tuanku Abdul Rahman, Kuala Lumpur/Malaysia Tel: 927307 City Audio Sdn. Bhd. B II, 2-04 1st Floor Komplek Tun Abdul Razak, Penang Road, Penang/Malaysia Tel: 610852 & 615926
<b>Netherlands</b>	Penhold B.V. Isarweg 6, 1043 AK Amsterdam Tel: 020-11-4957
<b>New Zealand</b>	Avalon Audio Corpn. Limited 119 Wellesley Street, Auckland 1, New Zealand Tel: 09-779-351, 09-775-370
<b>Norway</b>	Trondheim Hi-Fi Import P.O. Box 8245, Hammersborg, 0129 Oslo 1 Tel: 02-565841
<b>Singapore</b>	Pertama Audio Pte. Ltd. 68, Orchard Road, 03-33-37, Plaza Singapura, Singapore 0923, Republic of Singapore Tel: 3377771
<b>Spain</b>	Gaplasa S.A. Conde de Torroja, 24, 28022 Madrid Tel: 747-7777
<b>Sweden</b>	Nad Svenska Ab Box 5116, 402 23 Göteborg, Tel: 031-200040
<b>Switzerland</b>	Diethelm & Co., AG. Eggbühlstrasse 28, 8052 Zürich Tel: 01-3013030
<b>Thailand</b>	Mahajak Development Co., Ltd. 386, Mahajak Road, Samphanthawongse, Bangkok, Thailand Tel: 223-2865
<b>United Kingdom &amp; Eire</b>	Hayden Laboratories Ltd. Hayden House, Chiltern Hill, Chalfont St. Peter Gerrards Cross, Bucks. SL9 9UG Tel: 0753-888447
<b>U.S.A.</b>	Denon America Inc. 27 Law Drive. Fairfield, NJ 07006, U.S.A., Tel: 201-575-7810
<b>W. Germany</b>	Denon Electronic GmbH Halskestraße 32, 4030 Ratingen 1 Tel: 02102-4985-0

- \* If there is no service center in your local area, consult the outlet where the equipment was purchased.
- \* Falls sich in Ihrer Nähe keine Kundendienststelle befindet, wenden Sie sich an das Geschäft, wo das Gerät gekauft wurde.
- \* S'il n'y a aucun centre de service dans votre région, consultez votre revendeur.
- \* Saknas servicecentral i närheten där du bor, bör kontakt tas med återförsäljaren för apparaten.

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